

In the claims:

1. (currently amended) A method of processing a data signal for transmission to a remote device, the method comprising:

synchronizing the data signal with a clock signal to produce a composite signal;  
converting the composite signal to an outgoing signal, the outgoing signal being a wireless optical signal;

transmitting a plurality of copies of the outgoing signal, at least two copies of the outgoing signal being transmitted in different directions, a first copy being transmitted by a first directional transmitter in a first cone of focus and a second copy being transmitted by a second directional transmitter in a second cone of focus, the first and second cones of focus being non-overlapping, the first and second transmitters having non-identical transmission directions; and

receiving, by the remote device, the first and second copies of the outgoing signal at different times.

2. (original) The method as defined by claim 1 wherein the outgoing signal is in the infrared spectrum.

3. (original) The method as defined by claim 1 further comprising:  
amplifying the outgoing signal.

4. (original) The method as defined by claim 1 further comprising:  
encrypting the composite signal prior to converting it to the outgoing signal.

5. (original) The method as defined by claim 1 further comprising:  
receiving an incoming signal, the incoming signal being an optical signal and having a specified timing signal, the clock signal of the composite signal being synchronized with the specified timing signal.

6. (original) The method as defined by claim 1 wherein the data signal includes at least one of video data and audio data.

7. (original) The method as defined by claim 1 wherein the plurality of copies of the outgoing signal are transmitted through the air.

8. (original) The method as defined by claim 1 where the different directions overlap.

9. (currently amended) A network device for transmitting a data signal to a remote device, the network device comprising:

a synchronization module for synchronizing the data signal with a clock signal to produce a composite signal;

a signal converter operatively coupled with the synchronization module, the signal converter converting the composite signal to an outgoing signal, the outgoing signal being a wireless optical signal; and

an optical transmitter operatively coupled with the signal converter, the optical transmitter transmitting a plurality of copies of the outgoing signal, at least two copies of the outgoing signal being transmitted in different directions, the optical transmitter including first and second directional transmitters operable to transmit in first and second cones of focus having non-identical transmission directions, the first and second cones of focus being non-overlapping, and being operative to transmit a first copy by the first directional transmitter and a second copy by the second directional transmitter, the first and second copies of the outgoing signal both being received by the remote device.

10. (original) The network device as defined by claim 9 wherein the outgoing signal is in the infrared spectrum.

11. (original) The network device as defined by claim 9 further comprising:

an amplifier operatively coupled with the signal converter, the amplifier amplifying the outgoing signal.

12. (original) The network device as defined by claim 9 further comprising:

an encryption module for encrypting the composite signal prior to converting it to the outgoing signal.

13. (original) The network device as defined by claim 9 further comprising:

a receiver for receiving an incoming signal, the incoming signal being an optical signal and having a specified timing signal, the clock signal of the composite signal being synchronized with the specified timing signal.

14. (original) The network device as defined by claim 9 wherein the data signal includes at least one of video data and audio data.

15. (original) The network device as defined by claim 9 wherein the plurality of copies of the outgoing signal are transmitted through the air.

16. (original) The network device as defined by claim 9 where the different directions overlap.

17. (currently amended) A computer program product for use on a computer system for processing a data signal for transmission to a remote device, the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code, the computer program product comprising:

program code for synchronizing the data signal with a clock signal to produce a composite signal;

program code for converting the composite signal to an outgoing signal, the outgoing signal being a wireless optical signal; and

program code for transmitting a plurality of copies of the outgoing signal, at least two copies of the outgoing signal being transmitted in first and second cones of focus in different directions, the first and second cones of focus being non-overlapping, a first copy being transmitted by a first directional transmitter and a second copy being transmitted by a second directional transmitter, the first and second transmitters having non-identical transmission

directions, the first and second copies of the outgoing signal both being received by the remote device.

18. (original) The computer program product as defined by claim 17 wherein the outgoing signal is in the infrared spectrum.

19. (original) The computer program product as defined by claim 17 further comprising:  
program code for amplifying the outgoing signal.

20. (original) The computer program product as defined by claim 17 further comprising:  
program code for encrypting the composite signal prior to converting it to the outgoing signal.

21. (original) The computer program product as defined by claim 17 further comprising:  
program code for receiving an incoming signal, the incoming signal being an optical signal and having a specified timing signal, the clock signal of the composite signal being synchronized with the specified timing signal.

22. (original) The computer program product as defined by claim 17 wherein the data signal includes at least one of video data and audio data.

23. (original) The computer program product as defined by claim 17 wherein the plurality of copies of the outgoing signal are transmitted through the air.

24. (original) The computer program product as defined by claim 17 where the different directions overlap.

25. (previously presented) A method of processing data received from a remote device, the method comprising:

receiving, at different points in time, a plurality of copies of a single optical signal, the copies created by the remote device, a first copy being transmitted by a first directional transmitter and a second copy being transmitted by a second directional transmitter, the first and second transmitters having non-identical transmission directions, the optical signal being a wireless optical form of a first data signal;

converting the plurality of copies of the optical signal into a plurality of second data signals, each second data signal having data from one of the copies of the optical signal;

storing the plurality of second data signals in memory; and

reconstructing the first data signal from the plurality of second data signals in memory.

26. (previously presented) The method as defined by claim 25 wherein the act of reconstructing comprises:

designating one of the plurality of copies of the optical signal as a primary optical signal, the second data signal in memory that represents the primary optical signal being a primary second data signal;

retrieving the primary second data signal; and

if the primary second data signal is incomplete, then retrieving additional data of the first data signal from at least one of the other second data signals in memory.

27. (original) The method as defined by claim 25 wherein the optical signal is an infrared signal.

28. (original) The method as defined by claim 25 wherein the plurality of copies of the optical signal are received through the air.

29. (original) The method as defined by claim 25 wherein the first data signal includes at least one of audio data and video data.

30. (original) The method as defined by claim 25 further comprising:

generating a first outgoing signal, the first outgoing signal being a data signal;

synchronizing the first outgoing signal with a timing signal to produce a composite signal;  
converting the composite signal into a second outgoing signal that is an optical signal;  
transmitting a plurality of copies of the second outgoing signal to the remote device.

31. (original) The method as defined by claim 30 wherein at least two of the plurality of outgoing signals are transmitted in different directions.

32. (previously presented) An apparatus for processing data received from a remote network device, the apparatus comprising:

an input module for receiving, at different points in time, a plurality of copies of a single optical signal, the copies created by the remote device, a first copy being transmitted by a first directional transmitter and a second copy being transmitted by a second directional transmitter, the first and second transmitters having non-identical transmission directions, the optical signal being a wireless optical form of a first data signal;

an optical converter operatively coupled with the input module, the optical converter converting the plurality of copies of the optical signal into a plurality of second data signals, each second data signal having data from one of the copies of the optical signal;

memory for storing the plurality of second data signals; and a signal reconstruction module operatively coupled with the memory, the signal reconstruction module reconstructing the first data signal from the plurality of second data signals in memory.

33. (previously presented) The apparatus as defined by claim 32 wherein one of the plurality of copies of the optical signal is designated as a primary optical signal, the second data signal in memory that represents the primary optical signal being a primary second data signal, the apparatus further comprising:

a signal retrieving module for retrieving the primary second data signal, if the primary second data signal is incomplete, then the signal retrieving module retrieves additional data of the first data signal from at least one of the other second data signals in memory.

34. (original) The apparatus as defined by claim 32 wherein the optical signal is an infrared signal.

35. (original) The apparatus as defined by claim 32 wherein the plurality of copies of the optical signal are received through the air.

36. (original) The apparatus as defined by claim 32 wherein the first data signal includes at least one of audio data and video data.

37. (original) The apparatus as defined by claim 32 further comprising:

- a signal generator for generating a first outgoing signal, the first outgoing signal being a data signal;

- a synchronization module for synchronizing the first outgoing signal with a timing signal to produce a composite signal;

- a signal converter for converting the composite signal into a second outgoing signal that is an optical signal; and

- an output for transmitting a plurality of copies of the second outgoing signal to the remote device.

38. (original) The apparatus as defined by claim 37 wherein at least two of the plurality of outgoing signals are transmitted in different directions.

39. (previously presented) A computer program product for use on a computer system for processing data received from a remote device, the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code comprising:

- program code for receiving, at different points in time, a plurality of copies of a single optical signal, the copies created by the remote device, a first copy being transmitted by a first directional transmitter and a second copy being transmitted by a second directional transmitter,

the first and second transmitters having non-identical transmission directions, the optical signal being a wireless optical form of a first data signal;

program code for converting the plurality of copies of the optical signal into a plurality of second data signals, each second data signal having data from one of the copies of the optical signal;

program code for storing the plurality of second data signals in memory; and

program code for reconstructing the first data signal from the plurality of second data signals in memory.

40. (previously presented) The computer program product as defined by claim 39 where in the program code for reconstructing comprises:

program code for designating one of the plurality of copies of the optical signal as a primary optical signal, the second data signal in memory that represents the primary optical signal being a primary second data signal;

program code for retrieving primary second data signal; and program code for retrieving additional data of the first data signal from at least one of the other second data signals in memory if the primary second data signal is incomplete.

41. (original) The computer program product as defined by claim 39 wherein the optical signal is an infrared signal.

42. (original) The computer program product as defined by claim 39 wherein the plurality of copies of the optical signal are received through the air.

43. (original) The computer program product as defined by claim 39 wherein the first data signal includes at least one of audio data and video data.

44. (original) The computer program product as defined by claim 39 further comprising:  
program code for generating a first outgoing signal, the first outgoing signal being a data signal;



program code for synchronizing the first outgoing signal with a timing signal to produce a composite signal;

program code for converting the composite signal into a second outgoing signal that is an optical signal;

program code for transmitting a plurality of copies of the second outgoing signal to the remote device.

45. (original) The computer program product as defined by claim 44 wherein at least two of the plurality of outgoing signals are transmitted in different directions.

46. (original) The computer program product as defined by claim 39 wherein at least two of the plurality of copies of the optical signal are received from different directions.

47. (currently amended) A system for transmitting data signals to a receiver device, the system comprising:

a first network device having a first transponder with a first cone of focus;

a second network device having a second transponder with a second cone of focus, the first and second transponders each utilizing wireless optical signals to communicate,

the first transponder being configured to transmit a first copy of an optical signal in a first direction; and

the second transponder being configured to transmit a second copy of the same optical signal in a second direction, wherein the first and second directions are non-identical, and wherein the first copy of the optical signal is received by the receiver device at a different time than the second copy of the optical signal is received by the receiver device.

48. (previously presented) The system as defined by claim 47 wherein the second transponder is configured to receive at least one of the plurality of copies of a single optical signal.

49. (original) The system as defined by claim 48 wherein the single optical signal is the optical version of a composite signal, the composite signal being a data signal having outgoing data to be transmitted by the first network device, the outgoing data being synchronized with a clock signal.

50. (original) The system as defined by claim 49 wherein the second network device includes a processor for reconstructing the composite signal from the at least one of the plurality of copies of the single optical signal.